

## Special Issue

# Carbon Capture, Energy Consumption and Storage Technologies in Energy Systems for Green Energy Transition

### Message from the Guest Editors

The increase in energy-related carbon emissions has led to an alarming situation, in which the world must reduce its carbon emissions. This has contributed to the urgency of developing options for mitigation through advanced modelling tools, methodologies, and applications and technologies for carbon capture and storage in energy systems. This Special Issue aims to present and disseminate the most recent advances related to the theory, design, modelling, application, technology development, and implementation of all types of carbon capture and storage in energy systems. Topics of interest for publication include, but are not limited to, the following:

- All aspects of induction carbon capture, such as conceptual approaches, methodologies and modelling tools, utilisation, and technology development in energy systems;
- Energy consumption and transitions;
- Carbon capture and storage technologies in energy systems;
- Novel applications of carbon capture, energy utilisation, and technology for green energy transitions;
- The development of multiphase carbon capture and storage and reductions in the energy consumption associated with these processes in energy systems;

### Guest Editors

Dr. Pedro J. Zarco-Periñán

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Dr. Javier Zarco-Soto

### Deadline for manuscript submissions

25 October 2025



## Energies

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## About the Journal

### Message from the Editor-in-Chief

*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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### Editor-in-Chief

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